

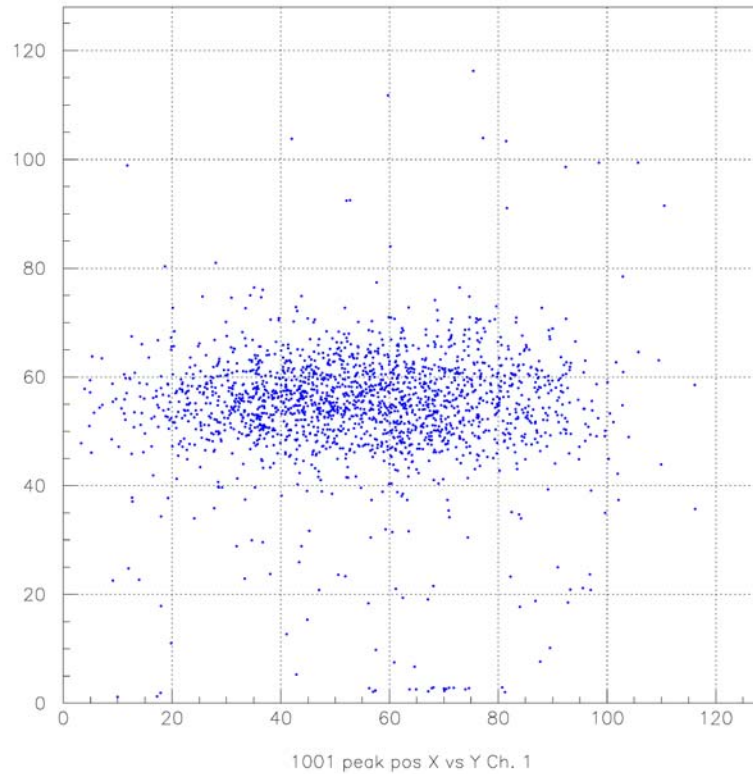
# Update on 3-coordinate readout GEM chambers

9-December-2013

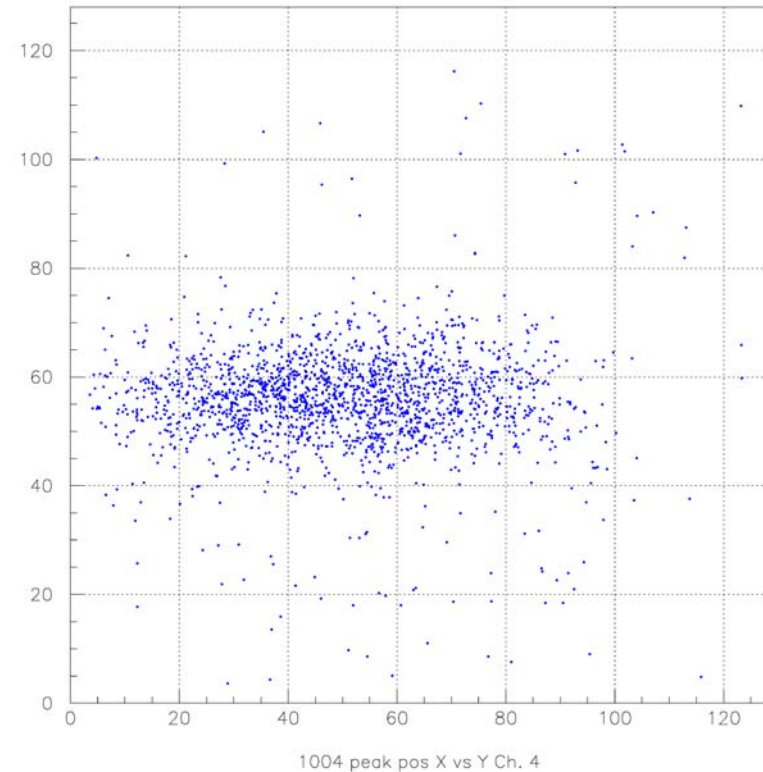
R. Majka, Yale

# Beam profiles at 3-coordinate chambers - 40 GeV Beam

Upstream chamber



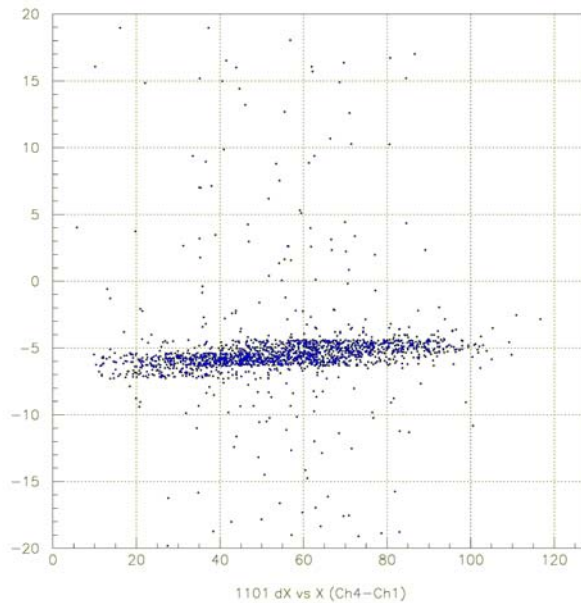
Downstream chamber



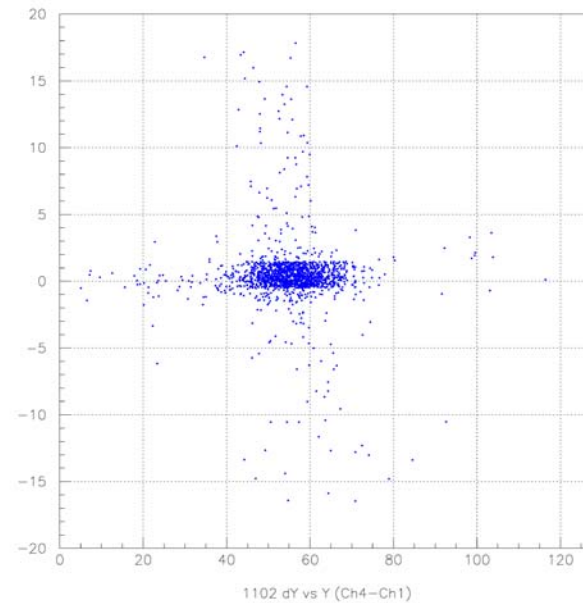
Horizontal

Units are channel number = 0.8 mm

Angle vs position for same runs (angle =  
(downstream position)-(upstream position))



Horizontal



Vertical

Small positive correlation  
indicates beam is diverging – if I  
got all the signs right.

Nikolai started looking at residuals

- Alignment - only horizontal and vertical displacement corrected so far, no rotations yet.
- Get *resolution* estimates  $\sim 100\text{-}150\ \mu\text{m}$
- Expect  $\sim 100\ \mu\text{m}$ , so things look reasonable.
- Still need to finish alignment and then refine cluster algorithm.